



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,093	01/18/2002	Santosh C. Lolayekar	E003 - 1003US0	3414
48789	7590	04/03/2008	EXAMINER	
LAW OFFICES OF BARRY N. YOUNG			NGUYEN, HANH N	
260 SHERIDAN AVENUE				
SUITE 410			ART UNIT	PAPER NUMBER
PALO ALTO, CA 94306-2047			2616	
			MAIL DATE	DELIVERY MODE
			04/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/051,093	LOLAYEKAR ET AL.	
	Examiner	Art Unit	
	Hanh Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on RCE filed on 1/29/08.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-63 is/are pending in the application.
 4a) Of the above claim(s) 31-43 and 54-63 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-30 and 44-53 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 13-20, 22-25, 29, 30, 44, 47-50 and 53 are rejected under 35 USC 103(a) as being unpatentable over Buckman et al. (US pat. 7,095,715 B2).

Note, the specification defines in page 6, lines 10-15 the storage switch as a multi-protocol SAN and process data at wire speed. Therefore, examiner uses the node 10 shown in figure 2 of Buckman et al. as a storage switch because it classifies and processes received packets at line speed (see col.6, lines 55-62);

Further, in page 28, paragraph [0113], storage control packet is defined as “connection request or management request”.

Further, “for routing data packets between an initiator and a storage device” in preamble is not shown in body of claim. Therefore, examiner does not have to consider this limitation in term of the prior art.

In claims 1, 4, 5, 6, 7, 13, 16, 20, 24, 44, Buckman et al. discloses a method for use by a storage switch (see fig.2, node 10) comprising:

receiving a plurality of packets by the switch (see fig.2; col.4, lines 65-67;
receiving packets 12); classifying packets as data packet and communicating the data

packet to a second device (see fig.2, classifier engine 14 classifies packets 12 and passes VOIP packets to audio mixer in packet process engine 16 to have a conference call); or classifying the received packets 12 as storage control packet (see col.5, lines 25-35; controller 22 associates with classifier 14 to detect TCP SYNC request packet associated with a new TCP connections (storage control packet)).

It is shown in Buckman et al. that node 10 provides packet processing, classifying via separate control path and data path (see col.4, lines 35-50); where in the control path is established by controller 22 to interface with classify engine 14, processing 16, shaper engine 18 and accountant engine 20. Therefore, it would have been obvious to communicate storage control packet received at classifier 14 to the accountant engine 20 (first device) on the control path because the accountant engine 20 tracks statistics in classifier 14 (communicating storage control packet to a first device).

One skilled in the art would be consider that the storage control packet being communicated via the control path to the accountant engine 20 of Buckman et al. once the received packets are classified engine 14. The motivation is to increase transmission speed for data packet.

Buckman et al. does not explicitly disclose said steps of classifying is performed without buffering of the packets. Note, as shown in specification, page 6, paraggrphs [0015];[0062] “processing packet without buffering the packet” is to process packet at wire speed with minimal time or no latency. Therefore, by line speed operation at the node 10 addressed above in (see col.6, lines 55-62); the node 10 is well-known in the

art to classify packets at high speed; minimal delay (see Buckman ; col.2, lines 61 to col.3, line 10) without buffering the packets.

In claims 14, 22 and 30, the limitations of these claims have been addressed in claim 1.

*In claims 11, 48, Buckman et al. discloses utilizing a local header for the packet, wherein the local header includes information indicating if the packet is a data packet or a non-data packet (see fig.2, col.4, lines 51-65; packets are classified based on header fields, packet contents or payload).

*In claim 8, Buckman et al. discloses the second device is external to the switch (col.7, lines 5-10; the classified packets 12 can be switched to be forwarded to shaper engine 18 which is a routing switch processor).

*In claim 9, 18, 47 and 53, Buckman et al. discloses data packets are for established connection (see col.5, lines 55-58; classify engine 14 monitors request and responses to allow new data flow), are for recognized protocol (see col.4, lines 55-62; classifying packets based on protocol type), and are data moving packets (see col.7, lines 10-20; voip packets).

*In claims 15, 23, 29 and 49, Buckman et al. discloses the steps of claim 1 are performed by a storage processor in the switch (packet processor 16 of node 10; see fig.2, col.7, lines 1-18).

*In claims 2, 3, 10, 17, 19, 25, 44, 50 Buckman et al. discloses classifies engine 14 detects TCP request packet associated with TCP connections (see col.5, lines 25-30; data packets form a data request).

Claims 26, 27, 45, 46, 47, 51, 52 are rejected under 35 USC 103(a) as being unpatentable over Mahajan et al. (US Pat. 6,804,236 B1) in view Wilford (pat. 6687247 B1).

*Claims 26, 27, 45, 46, 51, 52 are rejected under 35 USC 103(a) as being unpatentable over Buckman et al. (US pat. 7,095,715 B2) in view of Wilford et al. (US pat. 6,687,247 B1).

*In claims 26, 27, 45, 46, 51 and 52, Buckman does not disclose the second device is on a line card. But Buckman et al. discloses the audio mixer (second device) is located on a processor blade 32. Wilford et al. discloses the second device is on the linecard (see fig.1, fabric interface 170 on linecard 110; col.6, lines 5-10); or external to the linecard (fig.1, fabric 120 external to linecard 110). Therefore, it would have been obvious to one skilled in the art to locate the audio mixer on the line card of Wilford in order to connect to a plurality devices.

Claims 12, 21 and 28 are rejected under 35 USC 103(a) as being unpatentable over Buckman et al. (US Pat. 7,095,715 B2) in view of Grosner et al. (US Pat. 7,089,293 B2).

In claims 12, 21 and 28, Buckman et al. does not disclose processing data packets in accordance with a virtualization function. Grosner et al. discloses, in fig.1, a

storage network 100. The storage networks performs virtualization function 508 for request packets (see fig.5; col.6, lines 35-45). Therefore, it would have been obvious to use the virtualization function in Buckman et al. to process packets. The motivation is to provide physical resource, translate protocols.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Eberle et al. (US pat. 6,975,626 B1);

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Thursday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild , can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 2616

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hanh Nguyen/

Primary Examiner, Art Unit 2616